

This listing of claims will replace all prior versions and listings of claims in the application:

1 Claim 1 (canceled).

1 Claim 2 (currently amended): The method of claim ~~1~~ 4
2 wherein the selected ~~one of at least one~~ set of
3 configuration information for a data forwarding device is a
4 most recently committed set of configuration information
5 for the data forwarding device.

1 Claim 3 (currently amended): The method of claim ~~1~~ 4
2 wherein the selected ~~one of at least one~~ set of
3 configuration information for a data forwarding device is
4 selected by a user.

1 Claim 4 (currently amended): A method comprising:
2 a) accepting at least a part of a selected set of
3 configuration information for a data forwarding
4 device;
5 b) accepting at least a part of a set of candidate
6 configuration information for the data forwarding
7 device; and
8 c) determining differences, if any, between
9 - the at least a part of the set of candidate
10 configuration information for the data forwarding
11 device, and
12 - the at least a part of the selected set of
13 configuration information for the data forwarding
14 device,

15 ~~The method of claim 1~~ wherein the set of candidate
16 configuration information for the data forwarding device
17 includes a plurality of statements,
18 wherein a first statement of the plurality of
19 statements of the set of candidate configuration
20 information for the data forwarding device contains a
21 second statement of the plurality of statements to define
22 at least a part of a hierarchical configuration,
23 wherein the selected ~~one of the at least one~~ set
24 of configuration information for the data forwarding device
25 includes a plurality of statements, and
26 wherein a first statement of the plurality of
27 statements of the selected ~~one of the at least one~~ set of
28 configuration information for the data forwarding device
29 contains a second statement of the plurality of statements
30 to define at least a part of a hierarchical configuration.

1 Claim 5 (currently amended): The method of claim 4 wherein
2 the at least the part of the set of candidate configuration
3 information only includes a defined first statement and any
4 of the plurality of statements that are descendants of the
5 defined first statement in the hierarchical configuration,
6 and

7 wherein the at least the part of the selected ~~one~~
8 ~~of the at least one~~ set of configuration information
9 includes a corresponding first statement and any of the
10 plurality of statements that are descendants of the defined
11 first statement in the hierarchical configuration.

1 Claim 6 (original): The method of claim 5 wherein the
2 defined first statement is defined based on a statement of

3 the hierarchical candidate configuration information on
4 which a user is presently working.

1 Claim 7 (original): The method of claim 5 wherein the
2 defined first statement is defined by a user input.

1 Claim 8 (original): The method of claim 4 wherein the
2 hierarchical configuration information includes at least
3 two categories at a first hierarchical level, and
4 wherein the at least two categories are selected
5 from a group of data forwarding device configuration
6 categories consisting of:

- 7 A) chassis configuration information;
- 8 B) class-of-service configuration information;
- 9 C) firewall configuration information;
- 10 D) forwarding-options configuration information;
- 11 E) groups configuration information;
- 12 F) interfaces configuration information;
- 13 G) policy-options configuration information;
- 14 H) protocols configuration information;
- 15 I) routing-instances configuration information;
- 16 J) routing-options configuration information;
- 17 K) network management protocol configuration
18 information; and
- 19 L) system configuration information.

1 Claim 9 (original): The method of claim 4 wherein the
2 hierarchical configuration information includes at least
3 two categories at a given hierarchical level, the method
4 further comprising:

- 5 d) associating a predetermined permission value with
6 a user that is logged in; and

7 e) determining whether the logged in user is
8 permitted to access one of the at least two categories
9 of configuration information based on the
10 predetermined permission.

1 Claim 10 (currently amended): A method comprising:
2 a) accepting at least a part of a selected set of
3 configuration information for a data forwarding
4 device;
5 b) accepting at least a part of a set of candidate
6 configuration information for the data forwarding
7 device; and
8 c) determining differences, if any, between
9 - the at least a part of the set of candidate
10 configuration information for the data forwarding
11 device, and
12 - the at least a part of the selected set of
13 configuration information for the data forwarding
14 device,

15 ~~The method of claim 1~~ wherein the act of accepting at
16 least a part of a selected ~~one of at least one~~ set of
17 configuration information for a data forwarding device is
18 performed by accessing a storage device of the data
19 forwarding device,

20 wherein the act of accepting at least a part of a
21 set of candidate configuration information for the data
22 forwarding device is performed by accessing a storage
23 device of the data forwarding device; and

24 wherein the act of determining differences, if
25 any, between

26 - the at least the part of the set of candidate
27 configuration information for the data forwarding
28 device, and
29 - the at least the part of the selected ~~one of~~
30 ~~the at least one~~ set of configuration information
31 for the data forwarding device,
32 is performed by a component of the data forwarding device.

1 Claim 11 (currently amended): A method comprising:
2 a) accepting at least a part of a selected set of
3 configuration information for a data forwarding
4 device;
5 b) accepting at least a part of a set of candidate
6 configuration information for the data forwarding
7 device; and
8 c) determining differences, if any, between
9 - the at least a part of the set of candidate
10 configuration information for the data forwarding
11 device, and
12 - the at least a part of the selected set of
13 configuration information for the data forwarding
14 device,

15 ~~The method of claim 1~~ wherein the set of candidate
16 configuration information for the data forwarding device
17 includes a plurality of statements, ~~at least some of which~~
18 ~~define parameter values,~~
19 wherein the selected ~~one of the at least one~~ set
20 of configuration information for the data forwarding device
21 includes a plurality of statements, ~~at least some of which~~
22 ~~define parameter values,~~ and
23 wherein the act of determining differences, if
24 any, between

25 - the at least a ~~the~~ part of the set of
26 candidate configuration information for the
27 data forwarding device, and
28 - the at least a ~~the~~ part of the selected
29 ~~one of the at least one~~ set of configuration
30 information for the data forwarding device,
31 considers changes to a selected one of (a) statements only,
32 ~~(b) without regard to parameter values only, and (c)~~
33 ~~statements and parameter values.~~

1 Claim 12 (canceled)

1 Claim 13 (original): In a data forwarding device, a
2 facility for checking at least a part of a set of candidate
3 configuration information, the facility comprising:
4 a) a storage device for storing at least one set of
5 configuration information for the data forwarding
6 device;
7 b) an input facility for
8 i) accepting at least a part of a selected one
9 of the at least one set of configuration
10 information for a data forwarding device, and
11 ii) accepting at least a part of a set of
12 candidate configuration information for the data
13 forwarding device; and
14 c) a configuration comparison facility for
15 determining differences, if any, between
16 - the at least a ~~the~~ part of the set of
17 candidate configuration information for the data
18 forwarding device, and

19 - the at least a ~~the~~ part of the selected one of
20 the at least one set of configuration information
21 for the data forwarding device.

1 14. (currently amended) A method for determining
2 differences in at least a part of sets of configuration
3 information, comprising:

4 a) accepting at least a part of a first set ~~selected~~
5 ~~one of at least two sets~~ of configuration information
6 for a data forwarding device, wherein the first set of
7 configuration information has not been saved on the
8 data forwarding device as a committed configuration;

9 b) accepting at least a part of a second set ~~selected~~
10 ~~one of the at least two sets~~ of configuration
11 information for the data forwarding device, wherein
12 the second set of configuration information has been
13 saved on the data forwarding device; and

14 c) determining differences, if any, between
15 - the first set ~~selected one of the at least two~~
16 ~~sets~~ of configuration information for a data
17 forwarding device, and
18 - the second set ~~selected one of the at least~~
19 ~~two sets~~ of configuration information for a data
20 forwarding device.

1 15. (currently amended) The method of claim 14 wherein
2 the first set ~~selected one of at least two sets~~ of
3 configuration information for a data forwarding device
4 includes a plurality of statements,
5 wherein a first statement of the plurality of
6 statements of the first set ~~selected one of at least two~~
7 ~~sets~~ of configuration information for a data forwarding

8 device contains a second statement of the plurality of
9 statements to define at least a part of a hierarchical
10 configuration,
11 wherein the second set ~~selected one of at least~~
12 ~~two sets~~ of configuration information for a data forwarding
13 device includes a plurality of statements, and
14 wherein a first statement of the plurality of
15 statements of the second set ~~selected one of at least two~~
16 ~~sets~~ of configuration information for a data forwarding
17 device contains a second statement of the plurality of
18 statements to define at least a part of a hierarchical
19 configuration.

1 16. (currently amended) The method of claim 15 wherein
2 the at least the part of the first set ~~selected one of at~~
3 ~~least two sets~~ of configuration information for a data
4 forwarding device only includes a defined first statement
5 and any of the plurality of statements that are descendants
6 of the defined first statement in the hierarchical
7 configuration, and
8 wherein the at least the part of the second set
9 ~~selected one of at least two sets~~ of configuration
10 information for a data forwarding device includes a
11 corresponding first statement and any of the plurality of
12 statements that are descendants of the defined first
13 statement in the hierarchical configuration.

1 17. The method of claim 16 wherein the defined first
2 statement is defined by a user input.

1 18. The method of claim 15 wherein the hierarchical
2 configuration information includes at least two categories
3 at a first hierarchical level, and

4 wherein the at least two categories are selected
5 from a group of data forwarding device configuration
6 categories consisting of:

- 7 A) chassis configuration information;
- 8 B) class-of-service configuration information;
- 9 C) firewall configuration information;
- 10 D) forwarding-options configuration information;
- 11 E) groups configuration information;
- 12 F) interfaces configuration information;
- 13 G) policy-options configuration information;
- 14 H) protocols configuration information;
- 15 I) routing-instances configuration information;
- 16 J) routing-options configuration information;
- 17 K) network management protocol configuration
18 information; and
- 19 L) system configuration information.

1 19. (currently amended) The method of claim 14 wherein
2 the act of accepting at least a part of the first set
3 ~~selected one of at least two sets~~ of configuration
4 information for the data forwarding device is performed by
5 accessing a storage device of the data forwarding device,
6 wherein the act of accepting at least a part of
7 the second set ~~selected one of at least two sets~~ of
8 configuration information for the data forwarding device is
9 performed by accessing a storage device of the data
10 forwarding device, and

11 wherein the act of determining differences, if
12 any, between

13 - the first set ~~selected one of at least~~
14 ~~two sets~~ of configuration information for
15 the data forwarding device, and
16 - the second set ~~selected one of at least~~
17 ~~two sets~~ of configuration information for
18 the data forwarding device,
19 is performed by a component of the data forwarding device.

1 20. (currently amended) The method of claim 14 wherein
2 the first set ~~selected one of at least two sets~~ of
3 configuration information for a data forwarding device
4 includes a plurality of statements, at least some of which
5 define parameter values,
6 wherein the second set ~~selected one of at least~~
7 ~~two sets~~ of configuration information for the data
8 forwarding device includes a plurality of statements, at
9 least some of which define parameter values, and
10 wherein the act of determining differences, if
11 any, between
12 - the first set ~~selected one of at least~~
13 ~~two sets~~ of configuration information for
14 the data forwarding device, and
15 - the second set ~~selected one of at least~~
16 ~~two sets~~ of configuration information for
17 the data forwarding device,
18 considers a selected one of (a) statements only, (b)
19 parameter values only, and (c) statements and parameter
20 values.

1 Claim 21 (cancelled).

1 Claim 22 (original): In a data forwarding device, a
2 facility for comparing at least a part of sets of
3 configuration information, the facility comprising:
4 a) a storage device for storing at least two sets of
5 configuration information for the data forwarding
6 device;
7 b) an input facility for
8 i) accepting at least a part of a first selected
9 one of the at least two sets of configuration
10 information for the data forwarding device, and
11 ii) accepting at least a part of a second
12 selected one of the at least two sets of
13 configuration information for the data forwarding
14 device; and
15 c) a configuration comparison facility for
16 determining differences, if any, between
17 - the first selected one of the at least two
18 sets of configuration information for the data
19 forwarding device, and
20 - the second selected one of the at least two
21 sets of configuration information for the data
22 forwarding device.

1 Claim 23 (currently amended): A method comprising:
2 receiving with a data forwarding device, a first set
3 of configuration information for the data forwarding
4 device, wherein the first set of configuration information
5 has not yet been committed on the data forwarding device;
6 receiving with the data forwarding device, a second
7 set of configuration information for the data forwarding
8 device;

9 determining with the data forwarding device,
10 differences between the first and second sets of
11 configuration information.

1 Claim 24 (original): The method according to claim 23,
2 wherein the data forwarding device is a router.

1 Claim 25 (currently amended): A data forwarding device
2 comprising:
3 a memory storing a first set of configuration
4 information and a second set of configuration information
5 for the data forwarding device; and
6 a processing module for determining differences
7 between the first and second sets of configuration
8 information stored in the memory.

1 Claim 26 (currently amended): A data forwarding device
2 comprising:
3 a plurality of data interfaces for connection to
4 respective data lines;
5 a mechanism for forwarding data from one data
6 interface to another data interface;
7 a user interface for entering configuration
8 information;
9 a memory storing a first set of configuration
10 information and a second set of configuration information;
11 and
12 a processing module for determining differences
13 between the first and second sets of configuration
14 information stored in the memory.

1 Claim 27 (new): The method of claim 10 wherein the
2 selected set of configuration information for a data
3 forwarding device is a most recently committed set of
4 configuration information for the data forwarding device.

1 Claim 28 (new): The method of claim 10 wherein the
2 selected set of configuration information for a data
3 forwarding device is selected by a user.

1 Claim 29 (new): The method of claim 11 wherein the
2 selected set of configuration information for a data
3 forwarding device is a most recently committed set of
4 configuration information for the data forwarding device.

1 Claim 30 (new): The method of claim 11 wherein the
2 selected set of configuration information for a data
3 forwarding device is selected by a user.

1 Claim 31 (new): The method of claim 14 wherein a command
2 to save the first set of configuration information on the
3 data forwarding device as a committed configuration has not
4 occurred.